

A SAF/AQ - HQ USAF/XO Offsite was held 25-27 August 1996 at the Aspen Institute Wye River Conference Centers in Queenstown, Maryland. The offsite was co-chaired by Mr. Arthur L. Money, Assistant Secretary of the Air Force (Acquisition) and Lieutenant General John P. Jumper, DCS/Plans and Operations. A complete list of participants representing SAF/AQ, AF/XO, SAF/FM, AF/PE, AF/LG, MAJCOM DR/XP, AFOTEC, AFMC/ST, and AFMC Product Centers is at TAB 7. The offsite provided an opportunity to focus the combined talents and expertise of the Air Force's senior acquisition and operations leadership on key issues impacting both groups. The objectives of the offsite were to strengthen ties between operators and acquirers, and improve the way acquisition and operations do business as a community, in support of warfighters, by focusing on issue resolution.

The offsite began with opening remarks by Mr. Money and Lt Gen Jumper. Special presentations were then provided to encourage discussion on specific topics and provide background information for the focus groups. The offsite participants were divided into three focus groups to develop specific recommendations and action items for a series of issues identified prior to the offsite. Three focus groups were: Focus Group 1 - Requirements Process Improvement; Focus Group 2 - Staff Interaction; and Focus Group 3 - Modeling, Simulation, and Analysis. Focus group membership, goals, and objectives are shown at TAB 3. Mr. Gilbert F. Decker, the Army Acquisition Executive, was guest speaker and presented a discussion of Army Integrated Concept Teams (ICTs). The offsite concluded with each focus group presenting their results and leading a discussion on the recommendations and action items. Three key issues agreed upon during the offsite were:

- Energize the Modernization Planning Process (MPP) by developing Mission Essential Task Lists (METLs) and leveraging the Air Force Requirements Oversight Council (AFROC) to integrate the METLs and prioritize recommendations for Air Force needs. The AFROC will also review all Air Force Advanced Concept Technology Demonstrations (ACTDs) and aggressively pursue support from the Joint Staff and the Office of the Secretary of Defense.
- Improve Pentagon Action Officer education and training to better address the inter-relationships between the planning, requirements, and acquisition processes.
- The principals voiced their overwhelming support for the Integrated Product Teams (IPTs) concept and agreed on the necessity of better resolving issues at the lower levels and in improving productivity and communications. Additionally, Mr. Money and LG Jumper committed to working out the issue of "Who is in charge of the IPT?" which appeared to be one of the major issues raised by the AQ-XO action officers.

Mr. Money and LG Jumper were pleased with the offsite results and in closing remarks indicated the need for a follow-on offsite in February 1997. This document is the final report from the initial offsite.

## **WELCOMING REMARKS**

The Offsite opened on the evening of 25 August with introductory remarks by Col McCarter, Mr. Money, and LG Jumper. Col McCarter welcomed the attendees and discussed the objectives and format of the offsite. Mr. Money then welcomed the attendees and discussed the need to leave a legacy for the Air Force by working better, faster, and cheaper. LG Jumper welcomed the attendees and discussed the importance of supporting the warfighter and emphasized that AF/XO was the bridge to both SAF/AQ and the warfighter. He stressed the need for the acquisition community to be in tune with the needs of the warfighter, and to deliver supportable combat capability when it's needed.

On Monday, 26 August, the formal portion of the offsite convened. In his opening remarks, Mr. Money summarized his expectations for the offsite and discussed the importance of learning about each others' jobs, identifying ways to advance the requirements process, reducing overall costs, and bringing the acquisition cycle within the technology cycle. The ultimate goal is to deliver what's needed to the warfighter within the same generation of technology in which the need was conceived. Mr. Money commented he was impressed at what the Air Force can accomplish in spite of the system. He summarized the Air Force Acquisition Reform initiatives and in the spirit of cooperation, encouraged discussion and commented on the positive value of information exchange to better understand each other's job.

## **SPECIAL PRESENTATIONS**

The first presentation by Maj Gen Martin (AF/XOR) provided an overview of the History of Requirements. The significant observation is that the focus of requirements has changed at least seven times since 1947. The current focus is operational with the challenge to improve capability through greater partnership with warfighters, testers, contractors, decision makers, acquirers, technologists, budgeteers, and futurists. Discussion during this presentation resulted in the comment that a process is needed for transitioning Advanced Concept Technology Demonstrations (ACTDs) to formal Acquisition Programs/Systems.

The next presentation by Brig Gen Ward (AFSPC/DR) provided an overview of the Requirements Process. Gen Ward discussed the current process by explaining the stakeholders involved and basic components of the process. He discussed the MOP 77 requirements generation and milestone review process which resulted in significant discussion among the participants. The following main points were surfaced in this presentation:

- It is wrong to view requirements and acquisition as separate processes.
- Resource allocation competition must occur before ORDs, back in the Modernization Planning phase.
- A financial wedge for concept studies and Analysis of Alternatives (AOAs) is needed.
- Need to focus on CONOPS before a solution is identified.

- Get buy-in from senior level of Mission Area Analysis (MAA) where MPP process is driven.
- Is a CRD required or needed to get to an ORD? MOP 77 has discussion on the CRD but does not mandate it.
- Need to work ORD staffing process.
  - Need feedback loops to cost potential solutions to prevent “sticker shock.”
  - Need to balance technical push-pull dollars.
  - MAJCOM/CCs and CSAF sign all ORDs. Is this appropriate for all ACAT-level programs?
- Letter changes to ORD’s for subsequent milestone reviews may be appropriate.
- Where do we perform cross-fertilization or harmonization of requirements and AOA across MAJCOMs? With the Joint community?
- Requirements process is serial and a serial process causes delays. The process will be the same years from now unless something changes.

In Col Garvey’s (ACC/DRA) presentation on the Modernization Planning Process he discussed how the Aerospace Control Mission Area Team (ACC MAT) and Technical Planning Integrated Product Team (TPIPT) are applying the MPP to the Counterair and Theater Missile Defense mission areas. Modernization planning requires continuous feedback between the Labs, TPIPTs, and MATs. Col Garvey reviewed the components of the modernization planning at each level (ACC MATs, TPIPTs, Labs), results achieved, ongoing efforts, and a summary of actions. The following main points were surfaced in this presentation:

- How do we get buy-in from MAJCOMs on the Strategy-to-Task (STT) Process?
  - There is no cross fertilization (harmonization) today. The modernization planning process has no links in AF/XO and SAF/AQ. What are the kinds of things the Air Staff can do to help?
  - The STT process may not be implemented the same throughout the Air Force.
- The Air Force is not using Mission Essential Task Lists (METLs).
- There’s a requirement (models) to rapidly cost alternatives. LG Muellner mentioned that four contracts were recently awarded to achieve this capability.
- There’s a concern on level of cost fidelity required to support the MAPs.
- The Air Force MPP is underfunded. Mr. Money indicated it was worth a revisit.
- Potential Air Force ACTDs should “bubble up” from the MPP. The other Services get more TOA, and the Air Force is not playing.
- There’s a need to narrow concepts sooner to better focus thrusts. Battle labs could be a tool.

The presentation resulted in direction to the appropriate subgroups to revisit the issue of funding to support the Air Force MPP, resourcing program start-up, and to fully discuss the ACTD issue.

Lt Col Vela (SAF/AQPM) provided an overview of the Program “New Start” Process. He discussed the definition of an acquisition program, new start origins, key guidance, and

reviewed four case studies. In summarizing, he observed that no real “new start” process exists, needs are identified both from the top-down and bottom-up, operators establish and champion requirements, and acquisition activities must begin before Milestone I. No issues were noted. However, it was mentioned that there was once an initiative to get SAF/AQ involved in activities leading up to MS I however the funding was cut by Congress.

Maj Gen Hawley (SAF/AQP) presented an overview of Air Force Integrated Process Teams (IPTs). The creation of Air Force IPTs is the result of two initiatives, one from the Acquisition Community, the other from the AF Corporate Structure. MG Hawley discussed the IPT structure in different ACAT programs and the implementation in the AF Corporate Structure. He reviewed IPT roles, functions, member responsibilities and specific challenges to improve the IPT process. The bottom line is that effective interaction is essential for success. The IPT integrates with requirements generation, acquisition management, sustainment, and planning, programming, and budgeting. The following main points were raised in this presentation:

- IPTs save time and avoid scrap and re-work.
  - User and contractors are members of the Integrated Product Teams at the SPO level
- Do the 71 IPTs supporting the AF Corporate Structure align with SPD IWSM managers?
- The Working Level IPT has a role in both Acquisition and the Corporate Board Structure.
- What are the metrics for IPT's? How do we know they are working?
- Working teams uncover more issues than the old way of doing business.
- Training is the key to IPT success
- IPTs are doers versus committees which produce little.
- Use IPT for cutting coordination time.

Maj Gen Case (AF/XOM) presented a briefing on Air Force Modeling, Simulation and Analysis. He briefed the Air Force vision of “a Joint Synthetic Battlespace supporting better decisions and warfighting skills to build the world’s most respected air and space forces for the Joint Force Commander”. Three key investments to reach that vision are the campaign-level Joint Simulation System (JSIMS) for battlestaff training, the campaign-level Joint Warfare Simulation (JWARS) for analysis, and the mission- and engagement-level Joint Modeling and Simulation System (JMASS) for the requirements development, acquisition, and test processes. MG Case discussed the charter of AF/XOM as being the Air Force focal point for Modeling and Simulation (M&S) policy and advocacy, but that SAF/AQ participation is needed when it comes to M&S in acquisition issues. He also briefed the issues and topics to be discussed in the focus group.

The final presentation, by Col Armistead (AF/XORR) was on Challenges. The briefing on small space systems discussed the tasking, issues, options, and gameplan for applying the Tactical Space System (TSS) Mission Need Statement (MNS). No issues or major discussion points were noted.

Mr. Decker, the Army Acquisition Executive, discussed the on Army Integrated Concept Teams (ICTs). He discussed the old Army requirements process and provided a brief history. He quoted several paragraphs from the Requirements Determination booklet published by The U.S. Army Training and Doctrine Command (TRADOC). Copies of this booklet were made available to all offsite participants. Mr. Decker commented that the right membership on the ICT is critical and he believes ICTs will work.

## **FOCUS GROUP RESULTS**

The complete membership, goals, and objectives of each focus group are included at TAB 3.

### **Focus Group 1 - Requirements Process Improvement (Out-brief at TAB 4)**

The objective of Focus Group 1 was to identify specific actions to advance requirements and ensure the requirements process is responsive to the warfighter. The group's goals were to define the Air Force requirements generation phase, refine adjunct processes, develop education and training guidelines, and to discuss special topics as appropriate.

The group recommended a modification to the draft MOP 77 and to seek Joint Staff buy-in for the USAF position on CRDs. It was mentioned that the CRD is basically a CONOPS-like document which identifies the Joint CONOPS, interfaces to evolutionary systems, and common architectures for systems of systems. To strengthen the MPP, the group recommended the Mission Area Teams (MATs) be empowered to resolve issues and aid in documentation development. MAJCOM Requirements Principals lead the MATs and will perform the following a) determine the correct "stakeholders" for their respective MAT, b) perform the S-T-T, c) identify METLs, d) propose MNS for the next 4-Star MAP review. In addition, Group 1 recommended Mission Essential Task Lists (METLs) be developed by the MAJCOMs and harmonized by the AFROC. They would then be prioritized across the MAJCOMs, the Air Force, and finally in the Joint arena. To enhance the process, the group recommended 4-Star MAP approval be obtained. Focus Group 1 recommended a formalized IPT Process to transition a MNS to a program. For example, once the AFROC and 4-Star MAP review endorses developing a new MNS, the MAT transforms into a MAJCOM DR-led IPT or Integrated Concept Team (ICT). The group endorsed continuing industry participation on this IPT. The IPT develops the MNS, establishes a strategy to conduct the AOAs, prepares for Milestone 0 and develops a Rough Order Magnitude (ROM) cost (from the Mission Solution Analysis - MSA) for Air Force Corporate Board planning. A continuing problem is the lack of resources, both manpower and funding, for the initial analysis of alternatives to mission needs. The group recommended the establishment of consolidated centers of excellence for conducting AOAs. Along with this recommendation, a need was identified to establish and maintain a resource base of funding and people for the MPP. The group also recognized that formal training in the requirements process is inadequate and recommended the establishment of mandatory training for all personnel involved in the requirements process.

The discussions made clear the need for a reinvigorated AFROC, since much responsibility for Air Force requirements had been yielded to the JROC. The group recommended the role of the AFROC be expanded and mirror the JROC process, be more action/issues-oriented, perform an integrating/harmonizing function between MAJCOMs and may involve MAJCOM CVs depending on the issue(s).

Focus Group 1 also addressed Advanced Concept Technology Demonstrations (ACTDs). The basic issue is that the Air Force is not competing well with the other Services on ACTD funding. The group recommended further research into the sources and use of available ACTD funding. The group recommended a strong linkage between the MPP and ACTDs and said the MATs should propose ACTDs. The group noted ACTDs must be prioritized and both Joint Staff and OSD support must be sought. The group also noted that a process is needed to transition successful ACTDs into formal acquisition programs. Their final recommendation on this issue was to develop a special interest briefing on ACTDs for CORONA Fall 96.

### **Focus Group 2 - Staff Interaction (Out-brief at TAB 5)**

The objective of Focus Group 2 was to identify specific actions to significantly improve SAF/AQ - AF/XO staff interaction. The group's goals were to define program ownership, develop an Advanced Concept Technology Demonstration (ACTD) corporate management & transition process, clarify SAF/AQ - AF/XO IPT relationships, and to develop education & training guidelines.

Focus Group 2 began by reviewing how Advanced Concept Technology Demonstrations (ACTDs) are developed within HQ USAF. There is currently no Air Force corporate process for evaluating, staffing, funding and managing ACTDs, which results in missed opportunities to evaluate new technologies and leverage OSD funding. The group recommended establishing the AFROC as the ACTD OPR to review and flesh out all ACTDs. The group also recommended staffing ACTD candidates through the Air Force Corporate Structure. Turning to funding, particularly leveraging the small amount of "seed money" the group recommended funding the first two years of OSD approved programs from an existing Air Force Program Element. AF/PE accepted an action to identify an appropriate PE. A separate PE would be established for the out years (years 3+) for accepted candidates. To enlist senior support, the group supported Focus Group One's recommendation that ACTDs be briefed at CORONA Fall 96. The group recognized that the DDR&E sponsored "Breakfast Club" is an forum that requires active support to ensure Air Force ACTD needs receive the necessary emphasis. The group recommended that the SAF/AQR and AF/XOR principals attend rather than delegating this responsibility to subordinates, and when the discussion topics are known, the appropriate SAF/AQ Mission Area Director also attend. The group noted that Air Force attendees need to provide feedback from these meetings to the staff.

The second issue addressed by Focus Group 2 was that of educating and training HQ USAF PEMs and AOs. The premise posed for the group was that today's education and training fails to adequately prepare PEMs, AOs, and IPT leaders to effectively perform their duties. The group recommended an IPT be chartered to develop a PEM/AO "Big Picture" course of two to

three days in length and evaluate the need for minimum training standards and make recommendations as appropriate. The course should address the relationship between requirements generation, the PPBS, acquisition management, and IPTs. It should focus on answering question relating to “why we do”, not “how to do”. The members agreed that AETC course development expertise would be essential to the success of the effort. The intent of the group is for the new training to be mandatory for all PEMs and AOs within the first 90 days of their assignment to the Pentagon. The group believed that after 90 days, the training would be less effective. They also believed any course developed for PEMs and AOs should be made available to the MAJCOMs.

Focus Group 2 next turned to the issue of Working Level IPTs (WIPT), specifically who's in charge of the IPT. Most of the discussion revolved around the definition of lead PEM and whether the lead PEM should be in AF/XO or SAF/AQ. The group supported the concept of single WIPT which supports both the AF Corporate Structure and acquisition program management with membership varying according to the issues. The first recommendation was to reissue existing AF guidance on the use of IPTs emphasizing there is only one lead PEM for each program (or group of programs) and that individual is responsible for the IPT. When a WIPT is addressing an acquisition issue, the lead PEM represents the Program Manager in his/her absence and is responsible for ensuring appropriate top cover attends meetings based on the agenda. The group recommended a complete IPT directory be validated, published, and maintained. The group further recommended AF/PE take action to ensure all Pentagon newcomers receive HQ USAF IPT training. The SAF/AQ and AF/XO principals agreed to personally review the IPT process and issue appropriate policy.

The final issue addressed by Focus Group 2 was that of program responsibility within HQ USAF. Specifically, should there be a single lead at the Air Staff form program concept to disposal? The group observed there was no clear definition of ownership and no well-defined transition criteria which often results in confusion and wasted effort. This issue is directly related to earlier discussions on who should be the lead PEM. Discussions within the group were split on whether staff officers from AQ or XO should be the lead PEM, and whether we needed to continue with our current policy of transitioning responsibility at various points in the program. The group initially recommended a tiger team led by an impartial third party, perhaps AF/PE, develop a proposed solution. It was decided that this issue would be worked personally by SAF/AQ and AF/XO without the need to involve a third party, CSAF, or SECAF.

### **Focus Group 3 - Modeling, Simulation, and Analysis (Out-brief at TAB 6)**

The objective of Focus Group 3 was to clarify the current processes for addressing the challenges of MS&A in acquisition, both in terms of policy and resource advocacy. The group's goal was to define Air Force Acquisition M&S needs including policy, process, infrastructure, and resources.

Focus Group 3 began with a discussion of whether compliance with the Joint Modeling and Simulation System (JMASS) should be mandated. The group agreed the benefits of using a standard modeling and simulation architecture warranted mandatory compliance. However there was a discussion of the cost required to achieve compliance, particularly where models had

already been developed for more mature programs. The issue came down to one of testing and the need to have a high-fidelity standard model throughout a system's acquisition cycle. The original recommendation was modified so that JMASS compliance will be required for new systems models if digital system models do not currently exist. The group recommended the Air Force endorse Joint direction on the use of JMASS. To help implement the new direction, the existing JMASS steering group will establish policy for model library management, recommend policy for model compliance, and review JMASS status and the compliance requirement (especially for those weapon system programs already using non-compliant legacy models, but still facing operational testing in a JMASS environment).

Next considering the issue of whether new weapon systems should include embedded training capabilities, the group recommended all new programs consider embedded training in systems development training plans. The group noted that while there are benefits to embedded training, the downside to this issue is adding unnecessary complexity to combat systems where other training/simulation capabilities could serve adequately.

Turning to the question of whether new weapon systems should include Advanced Distributed Simulation (ADS) capabilities, the group recommended the Air Force continue advanced concept testbeds (e.g. Aerial Combat Enhanced Simulation (ACES)). The group recommended standards be developed for ADS and ADS requirements be addressed early in system development to minimize impacts upon program cost. If there is no significant cost penalty, program activities should be DIS/ADS compliant (including training simulators).

With the increase in importance of M&S throughout the DoD, Focus Group 3 considered problems related with attracting and retaining qualified personnel. There is currently no M&S career field in the Air Force and no certification available under the Acquisition Professional Development Program (APDP). Time spent working in M&S is not credited toward acquisition time, nor is there any specific M&S training. These facts make it difficult to attract the best people to work on M&S, and reduce the number of simulation-knowledgeable individuals at the decision making level. The group considered the need for an M&S AFSC, and decided there was no need to create a new segment of the APDP, a new AFSC, or a specific career path. However, the group recommended a Special Experience Identifier be established for those working in the M&S area. They also recommended training courses be reviewed for M&S content and acceptability and agreed to investigate awarding acquisition credit for M&S analysts.

The next issue considered by the group was whether or not Pedigreed databases are broadly applicable. It was noted that JAST established a Pedigree database, and that a Pedigreed database demonstrates value because it's aligned with goals of traceability and reuse, it provides an infrastructure for MS&A, and it defines a standardized methodology for the application of scenarios, databases and legacy models. The group agreed the Pedigree concept warrants further consideration and they encouraged AFAMS to investigate JSF's methodology. They also recommended Air Force users to use AFAMS as an initial M&S search entry point.

There is a significant issue concerning the amount of M&S funding in acquisition, and if and how that funding should be captured and managed. The amount allocated to M&S is significant and because there is widespread perception of duplication and no central cost control,



it can be an attractive cost reduction target. There is no single PE, appropriation, or cost element and M&S funding is usually integrated within acquisition programs. The difficulty is in separating out the cost of M&S from the cost of its application or use, because M&S is so tightly integrated into the process where it is applied. If M&S is used in testing a product, for example, arbitrary definitions would have to be established to separate M&S costs from testing costs. There are no standard accepted definitions for separating these costs; any definitions or methods should be DoD standards, not AF-unique. The other challenge is in trying to centrally manage/control costs of integral parts (simulations) of decentralized processes, such as AoAs, engineering design, and testing, of disparate weapon programs. The group recognized this was not a problem unique to the Air Force and recommended issues be worked through the EXCIMS Acquisition Council. The group recommended against attempting to track M&S funding in acquisition (except when M&S systems/software/tools are the objects being acquired), but there was strong disagreement from SAF/FMBI and AF/PE who wanted to define and capture all costs. At the suggestion of SAF/AQ, this discussion was tabled. The group believed the best approach was for the Air Force to focus on M&S efficiency, and to encourage methods of identifying and reducing M&S duplication.

The group next looked at whether there should be an S&T requirements process for M&S. There is currently no established M&S technology needs process. However, ESC is evolving the Technical Planning IPT (TPIPT) and AFMC/ST is currently assessing M&S S&T investment. The group recommended enabling technologies continue to be identified (e.g. current ongoing studies) and the TPIPT be challenged to determine M&S S&T needs.

The final issue addressed by Focus Group 3 was one of management oversight. The traditional “ad hoc” approach to M&S has resulted in a legacy of uncoordinated, duplicative simulations, which are still being used in major acquisition programs. Recent efforts, led by AF/XOM, to build standardized, reusable M&S architectures have begun to rectify this situation, however, more management oversight and authority is needed over M&S activities in the major acquisition programs. The group decided there was a need to define policy and lines of authority for acquisition related M&S in terms of both advocacy and funding. The group recommended the Air Force’s leverage of EXCIMS be strengthened by ensuring acquisition M&S issues are identified and funneled to EXCIMS participants (AF/XOM and SAF/AQR), and the Air Force Simulation and Analysis Working Group (AFSAWG) be made more effective by active and consistent Air Staff participation. Finally, the group recommended a review by AF/XOM, SAF/AQR, and the SAF/AQ MADs and PEOs to capture the scope of M&S throughout acquisition, and ultimately expand the review to other functional areas such as Test and Logistics.

## **ACTION ITEMS**

There were no action items generated during the general sessions. All action items resulting from the focus group outbriefs may be found at TAB 2. These include OPR, OCR, and Suspense Date, and represent the consensus and approval of all participants.

AQ/XO Offsite

## **WORLD WIDE WEB (WWW)**

The AQ - XO Offsite summary is located at [http://www.hq.af.mil/safaq/prog\\_info/offsite](http://www.hq.af.mil/safaq/prog_info/offsite) and contains the following information:

- Special Presentations
- Focus Groups
- Executive Summary
- Action Items